

Decision on Opposition

Opposition No. 2019-700748

Patentee	NICHIAS Corporation
Patent Attorney	Ashitaba International Patent Firm
Patent Attorney	AKATSUKA, Kenji
Patent Attorney	SAKATA, Yasuyuki
Patent Attorney	SHIBUYA, Ken
Opponent	MATSUNAGA, Kentaro

The case of opposition against the patented invention of Japanese Patent No. 6486328, entitled "Holding material for an exhaust gas treatment device and exhaust gas treatment device" has resulted in the following decision.

Conclusion

The correction of the scope of claims of Japanese Patent No. 6486328 regarding Claims 1 and 2 after correction shall be approved as the scope of claims attached to the written correction request.

The patents for Claims 1 and 2 of Japanese Patent No. 6486328 are to be revoked.

Reason

No. 1 History of the procedures

The application regarding the patents according to Claims 1 and 2 of Japanese Patent No. 6486328 was filed on December 26, 2016, the establishment of the patent right thereof was registered on March 1, 2019, and a patent gazette was issued on March 20, 2019. After that, with respect to that patent, opposition to the granted patent was filed on September 19, 2019 by the patent opponent, Toyomi Nishiguchi (hereinafter, referred to as "Opponent"), notice of reason for rescission was notified as of December

11, 2019 (date of dispatch: December 17 of the same year), a request of correction and submission of a written opinion was made from the Patentee on February 14, 2020, which is within the designation period for that, a written opinion was submitted on March 27, 2020 from Opponent with respect to the request of correction, reasons for rescission <advance notice of decision> were notified as of June 30, 2020 (date of dispatch: July 7 of the same year), and submission of a written opinion was made by the Patentee on September 4, 2020, which is within the designation period for that.

No. 2 Judgment on propriety of correction

1 Contents of correction

The contents of the request of correction on February 14, 2020 (hereinafter, referred to as "Correction Request") are as the following (1) to (4). Note that underlines indicate the corrected portions.

(1) Correction A

To request to correct "inorganic fibers" written in Claim 1 of the scope of claims before correction to

"only alumina fibers as inorganic fibers" (Claim 2 that refers to the description of Claim 1 is corrected in a similar fashion).

(2) Correction B

To request to correct "a basis weight of 1600 to 3000 g/m²" written in Claim 1 of the scope of claims before correction to

"a basis weight of 1800 to 2200 g/m²" (Claim 2 that refers to the description of Claim 1 is corrected in a similar fashion).

(3) Correction C

To request to correct "a bulk density of 0.125 to 0.205 g/cm³" written in Claim 1 of the scope of claims before correction to

"a bulk density of 0.145 to 0.185 g/cm³" (Claim 2 that refers to the description of Claim 1 is corrected in a similar fashion).

(4) Correction D

To request to correct "a thickness of 1 to 12 mm" written in Claim 2 of the scope of claims before correction to

"a thickness of 2.5 to 8 mm".

2 Suitability of the correction purpose, and whether there is existence of new matters and existence of enlargement or alternation of the scope of claims

(1) Regarding Correction 1

A Suitability of the correction purpose

The correction to correct "inorganic fibers" of Claim 1 before correction to "only alumina fibers as inorganic fibers" is one that restricts the type of inorganic fibers, and thus it is for the purpose of restriction of the scope of claims.

B Whether there is existence of new matters

Relating to the point that "inorganic fiber" of Claim 1 before correction is corrected to "only alumina fibers as inorganic fibers", there are the following descriptions in the description of the patent of the case.

"[0014]

The holding material for an exhaust gas treatment device according to the present invention is made of a wet molded body containing inorganic fibers.

The inorganic fibers contained in the wet molded body function as skeleton fibers constituting the wet molded body, and it is possible to cite one or more type of fiber selected from alumina fibers, mullite fibers, alumina silicate fibers, silica fibers, bio-soluble fibers, as an example of the inorganic fibers.

[0015]

In the holding material for an exhaust gas treatment device according to the present invention, the alumina fiber means an amorphous fiber or a polycrystalline fiber containing alumina (Al_2O_3) as a main component, and preferably contains 90 to 99% by mass of Al_2O_3 , 1 to 10% by mass of SiO_2 , more preferably 95 to 99% by mass of Al_2O_3 and 1 to 5% by mass of SiO_2 , furthermore preferably 96 to 99% by mass of Al_2O_3 and 1 to 4% by mass of SiO_2 ."

Therefore, "only alumina fibers as inorganic fibers" is within the range of the above-mentioned described matter.

C Whether there is existence of substantial enlargement or alternation of the scope of claims

As the above-mentioned A, since Correction 1 is for the purpose of restriction of the scope of claims, and is not one that changes the category, target, and purpose, it is not a correction that enlarges or alters the scope of claims.

In addition, although Correction 1 is one that substantially corrects also Claim 2 before correction that refers to Claim 1 before correction, it is not one that changes the category, target, and purpose in the relation with Claim 2 before correction, and, therefore, it is not a correction that substantially enlarges or alters the scope of claims.

(2) Regarding Correction 2

A Suitability of the correction purpose

The correction to correct "a basis weight of 1600 to 3000 g/m²" of Claim 1 before correction to "a basis weight of 1800 to 2200 g/m²" is one that restricts the range of the basis weight of the holding material for an exhaust gas treatment device, and thus it is one for the purpose of restriction of the scope of claims.

B Whether there is existence of new matter

Relating to the point that "a basis weight of 1600 to 3000 g/m²" of Claim 1 before correction is corrected to "a basis weight of 1800 to 2200 g/m²", there are the following descriptions in the description of the patent of the case.

"[0026]

In the holding material for an exhaust gas treatment device according to the present invention, the wet molded body has a basis weight of 1600 to 3000 g/m², preferably 1700 to 2500 g/m², more preferably 1800 to 2200 g/m²."

Therefore, "a basis weight of 1800 to 2200 g/m²" is within the range of the above-mentioned described matter.

C Whether there is existence of substantial enlargement or alternation of the scope of claims

As the above-mentioned A, Correction 2 is for the purpose of restriction of the scope of claims, and is not one that changes the category, target, and purpose, and, therefore, it is not a correction that enlarges or alters the scope of claims.

In addition, although Correction 2 is one that substantially corrects also Claim 2 before correction that refers to Claim 1 before correction, it is not one that changes the category, target, and purpose in the relation with Claim 2 before correction, and, therefore, it is not a correction that substantially enlarges or alters the scope of claims.

(3) Regarding Correction 3

A Suitability of the correction purpose

The correction to correct "a bulk density of 0.125 to 0.205 g/cm³" of Claim 1 before correction to "a bulk density of 0.145 to 0.185 g/cm³" is one that restricts the range of the bulk density of the holding material for an exhaust gas treatment device, and thus it is for the purpose of restriction of the scope of claims.

B Whether there is existence of new matters

Relating to the point that "a bulk density of 0.125 to 0.205 g/cm³" of Claim 1 before correction is corrected to "a bulk density of 0.145 to 0.185 g/cm³", there are the following descriptions in the description of the patent of the case.

"[0027]

In the holding material for an exhaust gas treatment device according to the present invention, the wet molded body preferably has a bulk density of 0.125 to 0.205 g/cm³, preferably 0.135 to 0.195 g/cm³, and more preferably 0.145 to 0.185 g/cm³."

Therefore, "a bulk density of 0.145 to 0.185 g/cm³" is within the range of the above-mentioned described matter.

C Whether there is existence of substantial enlargement or alternation of the scope of claims

As the above-mentioned A, Correction 3 is for the purpose of restriction of the scope of claims and is not one that changes the category, target, and purpose, and, therefore, it is not a correction that enlarges or alters the scope of claims.

In addition, although Correction 3 is one that substantially corrects also Claim 2 before correction that refers to Claim 1 before correction, it is not one that changes the category, target, and purpose in the relation with Claim 2 before correction, it is not a correction that substantially enlarges or alters the scope of claims.

(4) Regarding Correction 4

A Suitability of the correction purpose

The correction to correct "a thickness of 1 to 12 mm" of Claim 2 before correction to "a thickness of 2.5 to 8 mm" is one that restricts the range of the bulk density of the holding material for an exhaust gas treatment device, it is for the purpose of restriction of the scope of claims.

B Whether or not there is existence of new matters

Relating to the point that "a thickness of 1 to 12 mm" of Claim 1 before

correction is corrected to "a thickness of 2.5 to 8 mm", there are the following descriptions in the description of the patent of the case.

"[0063]

In the exhaust gas treatment device according to the present invention, the wet molded body constituting the holding material for the exhaust gas treatment device according to the present invention has a thickness of preferably 1 to 12 mm, more preferably 2 to 10 mm, and still more preferably 2.5 to 8 mm, in a state compressed in the gap between the exhaust gas treating body and the casing accommodating the exhaust gas treating body."

Therefore, "a bulk density of 0.145 to 0.185 g/cm³" is within the range of the above-mentioned described matter.

C Whether there is existence of substantial enlargement or alternation of the scope of claims

As the above-mentioned A, Correction 4 is for the purpose of restriction of the scope of claims and is not one that changes the category, target, and purpose, and thus it is not a correction that enlarges or alters the scope of claims.

3 Regarding a group of claims

Regarding Claims 1 and 2 before the correction of the case, Claim 2 is one that directly refers to Claim 1 before correction, and, therefore, Claim 2 before correction is one that is corrected in conjunction with Claim 1 to be corrected by the matters of correction.

Therefore, Claim 1 before correction and Claim 2 that directly refers to Claim 1 are a group of claims prescribed in Article 120-5(4) of the Patent Act.

Accordingly, the corrections of Corrections 1 to 3 are ones that were requested with respect to the relevant group of claims [1 and 2].

4 Summary

As described above, the corrections according to Request of Correction are aimed at the matters prescribed in item (iii) of the proviso to Article 120-5(2) of the Patent Act, and, comply with the provision of Article 126(5) and (6) of the same Act as applied mutatis mutandis pursuant to the provisions of Article 120-5(4) and (9) of the same Act, and, therefore, the corrections of the scope of claims shall be approved regarding Claims [1 and 2] after correction as the scope of claims attached to the written

correction request.

No. 3 Regarding the opposition to the granted patent

1 Regarding the Invention

The inventions according to Claims 1 and 2 of Japanese Patent No. 6486328 (hereinafter, referred to as "Inventions 1 and 2") are ones that are specified by the following matters written in Claims 1 and 2 of the scope of claims after correction that were corrected by the Request of Correction.

"[Claim 1]

An exhaust gas treatment device, comprising: an exhaust gas treating body; and a casing accommodating the exhaust gas treating body, wherein

a gap between the exhaust gas treating body and the casing accommodating the exhaust gas treating body contains only alumina fibers as inorganic fibers, and a holding material for an exhaust gas treatment device composed of a wet molded body having a basis weight of 1800 to 2200 g/m² and a bulk density of 0.145 to 0.185 g/cm³ is disposed in a state compressed to a filling density of 0.20 to 0.60 g/cm³.

[Claim 2]

The exhaust gas treatment device according to claim 1, wherein a thickness of the wet molded body in the compressed state is 2.5 to 8 mm."

2 Outline of reasons for rescission

An outline of reasons for rescission <Advance Notice of Decision> notified as of July 7, 2020 is shown as follows.

Reason 1 (Ministerial Ordinance Requirement) In the patent of the case, the description of the detailed description of the invention does not meet the requirement stipulated in Article 36(4)(i) of the Patent Act.

Reason 2 (Inventive step) The inventions according to Claims 1 and 2 of the patent of the case could have been invented with ease by a person ordinarily skilled in the art in the technical field of the invention (hereinafter, referred to as "a person skilled in the art") before the application was filed based on the invention described in the following Evidence A No. 2 that was distributed in Japan or abroad or made available to the public through electric communication lines in advance of the patent application of the case, and, therefore, it is one that was made in violation of the provisions of Article 29(2) of the Patent Act.

Reason 3 (Requirements for support) The patent of the case is one in which the description of the scope of claims does not meet the requirement stipulated in Article 36(6)(i) of the Patent Act.

Note

Evidence A No. 2 Japanese Unexamined Patent Application Publication No. 2015-71836

3 Judgment on the reasons for rescission notified

Considering the case, judgment is made starting from Reason 3.

(1) Regarding Reason 3

The inorganic fibers containing only alumina fibers in Inventions 1 and 2 are fibers including all the matters specifying the invention included in the numerical value range written in the scope of claims in a basis weight, a bulk density, a filling density, and a thickness of the wet molded body in the compressed state, and thus, in all combinations of the matters specifying the invention included in the numerical value range in question, the problem to be solved of the Invention (refer to paragraph [0008] and the like of the patent of the case) needs to be solved.

Here, when the inventions according to Claims 1 and 2 and the ones described in the detailed description as an invention are examined regarding substantial correspondence relationship, in the detailed description, there are described, as Example 1, a holding material having a basis weight of 2000 g/m², a bulk density of 0.167 g/cm³, a filling density of 0.4 g/cm³, and a thickness of 12 mm (paragraph [0029], [0069], and the like), and it is only shown that, in comparison with Comparative Examples 1 and 2, Example 1 has a high surface pressure survival rate when the basis weight is 2000 g/m² (refer to [FIG. 3] and the like), and that a surface pressure is high when the filling density is 0.25 to 0.60 g/cm³ (refer to [FIG. 2] and the like), that no other example is described; therefore, it cannot be said that the matter which can solve the above-mentioned problem can be expanded to the range shown in Inventions 1 and 2.

Although the patentee has stated in the written opinion of February 14, 2020 that, by the correction to limit the numerical value ranges, "The inventions according to Claim 1 and Claim 2 have become ones that correspond to the detailed description of the case satisfactorily, and we consider that, based on the detailed description of the case and the common general technical knowledge at the time of the application, the substantive relation between the problem to be solved and specification according to the

numerical value ranges has become clear, and the means for solving the problem of the case become clear." (page 9, lines 21 to 24), there are no descriptions regarding matters specifying the invention other than the above-mentioned example, and there is no mention of mechanism that the above-mentioned problem can be solved if the matters specifying the invention of Inventions 1 and 2 are included can be understood by a person skilled in the art read through the detailed description.

Therefore, Inventions 1 and 2 that take combinations in predetermined numerical value ranges of a basis weight, bulk density, filling density, and thickness of the wet molded body in the compressed state as the matters specifying the invention are ones that may include a combination that does not solve the above-mentioned problem to be solved, and, therefore, it cannot be necessarily said that these are inventions described in the detailed description.

In this connection, the Patentee alleges in 5(4) of the written opinion of September 4, 2020 that "However, as mentioned above, the invention according to Claim 1 (Invention 1) is one that stipulates to arrange the holding material for an exhaust gas treatment device composed of a wet molded body within an extremely narrow range of 'a bulk density of 0.145 to 0.185 g/cm³' in a compressed state of 'a filling density of 0.20 to 0.60 g/cm³', and it is considered that this point is supported sufficiently by Example 1 of the description of the case that discloses that the holding material for an exhaust gas treatment device composed of a wet molded body of a bulk density of 0.167 g/cm³ is filled at a filling density of 0.25 to 0.60 g/cm³.", and "Then, Invention 1 is one that further stipulates 'a basis weight of 1800 to 2200 g/m²' in the holding material for an exhaust gas treatment device composed of a wet molded body having a bulk density that is within the above-mentioned extremely narrow range, it is supported sufficiently by comparison between Example 1 and Comparative Example 1 and Comparative Example 2 shown in the above-mentioned FIG. a and FIG. b that a difference in an initial surface pressure and a surface pressure maintenance rate arises taking the lower limit value 1800 g/m² of the above-mentioned basis weight as a border, and this point can be confirmed also by the result of the Reference Experiment Example 2 illustrated this time (that is, a wet molded body having a basis weight of 1540 g/m² cannot sufficiently maintain a surface pressure maintenance rate). Furthermore, although, as is also obvious from the result of Reference Experiment Example 1 illustrated in the above-mentioned FIG. b (the result of the surface pressure survival rate evaluation of a wet molded body having a basis weight of 2640 g/m²), it has been already known that, in the upper limit value side of the basis weight, a surface pressure maintenance effect is exerted to some extent, the upper limit value was daringly limited

to 2200 g/m² based on the description of the basis weight (2000 g/m²) of Example 1 in the description of the case".

Here, examine the Patentee's statement that "a difference in an initial surface pressure and a surface pressure maintenance rate arises taking the lower limit value 1800 g/m² of the above-mentioned basis weight as a border", in "FIG. b" of the above-mentioned written opinion, there is Reference Experiment Example 2 is newly added as data of "a wet molded body having a basis weight of 1540 g/m², and a bulk density of 0.165 g/cm³". Then, for example, when the basis weights are seen in ascending order of the surface pressure survival rate after 2500 times of repeated compression, these are 1540 g/m², 1320 g/m², 1350 g/m², 2000 g/m², and 2640 g/m², and thus it cannot be said that the relation between a basis weight and a surface pressure survival rate has a proportional relationship, and it can be said that it is difficult to speculate a surface pressure survival rate when a basis weight is 1800 g/m²; therefore, it cannot be said that it is described sufficiently that a difference in an initial surface pressure and a surface pressure maintenance rate arises taking the lower limit value 1800 g/m² of the basis weight as a border.

Furthermore, in view of the above-mentioned written opinion, it is stated, regarding "FIG. a", that "by a basis weight of the holding material for an exhaust gas treatment device composed of a wet molded body being 1800 to 2200 g/m², a filling density is high over a span of a filling density of 0.20 to 0.60 g/cm³ in comparison with a case using a holding material for an exhaust gas treatment device composed of a wet molded body having a basis weight outside the above-mentioned range even with an identical filling density, and thus it can be understood that an exhaust gas treatment device that has a high initial surface pressure and can exercise excellent holding force with respect to an exhaust gas treating body can be provided." (page 4, line 3 to 8), however, data of a filling density of 0.20 to 0.25 g/cm³ are not shown in (FIG. a) of the written opinion, and, therefore, it is unclear whether it can be said whether or not excellent holding force can be exercised over a span of a filling density of 0.20 to 0.60 g/cm³ (also in [FIG. 2] in the patent of the case, data of 0.20 to 0.25 g/cm³ are not indicated in a similar fashion).

As stated above, even if the description of the above-mentioned written opinion is taken into consideration, it cannot be said that it is shown sufficiently that a difference arises in a surface pressure survival rate taking what degree of value as a border as a lower limit value of the basis weight, and, therefore, it cannot be said that "a difference in an initial surface pressure and a surface pressure maintenance rate arises taking the lower limit value 1800 g/m² of the basis weight as a border" is supported.

In addition, no data of a filling density of 0.20 to 0.25 g/cm³ are shown, and thus, also regarding the matter that excellent holding force can be exercised over a span of a filling density of 0.20 to 0.60 g/cm³, it cannot be said that it is supported.

Therefore, Inventions 1 and 2 are not ones that have been described in the detailed description.

(2) Regarding Reason 1

Regarding "a holding material for an exhaust gas treatment device", in the detailed description of the invention (Example 1 in [0069]), there is indicated an example having the constitution of "a thickness of 12 mm, basis weight of 2000 g/m², and bulk density of 0.167 g/cm³", and comparison with a comparative example was performed only in the case of a basis weight is "2000 g/m²" ([0072] to [0075]), however examples and the like using numerical values other than that are not described.

Then, in the matters specifying the invention of Inventions 1 and 2, although prescription is made by the numerical value ranges as "a basis weight of 1800 to 2200 g/m²", "a bulk density of 0.145 to 0.185 g/cm³", "a filling density of 0.2 to 0.6 g/cm³", and "a thickness of the wet molded body in the compressed state is 2.5 to 8 mm", it is unclear why such numerical value ranges can be set only based on the comparison result between Example 1 and the comparative examples even if detailed description, the drawings and the common general technical knowledge at the time of the application are taken into consideration.

In this connection, the Patentee alleges in 5(3) of the above-mentioned written opinion that "Then, the invention according to Claim 1 (Invention 1) is one that stipulates to arrange the holding material for an exhaust gas treatment device composed of a wet molded body within an extremely narrow range of 'a bulk density of 0.145 to 0.185 g/cm³' in a compressed state of 'a filling density of 0.20 to 0.60 g/cm³', and it is considered that the ground for that is sufficiently shown by Example 1 of the description of the case that discloses that the holding material for an exhaust gas treatment device composed of a wet molded body of a bulk density of 0.167 g/cm³ is filled at a filling density of 0.25 to 0.60 g/cm³.", and that "Then, Invention 1 is one that further stipulates 'a basis weight of 1800 to 2200 g/m²' in the holding material for an exhaust gas treatment device composed of a wet molded body having a bulk density that is within the above-mentioned extremely narrow range, it is shown sufficiently by comparison between Example 1 and Comparative Example 1 and Comparative Example 2 shown in the above-mentioned FIG. a and FIG. b that a difference in an initial surface pressure and a surface pressure maintenance rate arises taking the lower limit value 1800 g/m² of

the above-mentioned basis weight as a border, and this point can be confirmed also by the result of Reference Experiment Example 2 illustrated this time (that is, a wet molded body having a basis weight of 1540 g/m² cannot sufficiently maintain a surface pressure maintenance rate).

Furthermore, although, as is also obvious from the result of Reference Experiment Example 1 illustrated in the above-mentioned FIG. b (the result of the surface pressure survival rate evaluation of a wet molded body having a basis weight of 2640 g/m²), it has been already known that, on the upper limit value side of the basis weight, a surface pressure maintenance effect is exerted to some extent, the upper limit value was daringly limited to 2200 g/m² based on the description of the basis weight (2000 g/m²) of Example 1 in the description of the case."

Regarding this point, as described in the above-mentioned (1), it cannot be said that it is shown sufficiently that a difference arises in a surface pressure survival rate taking what degree of value as a border as a lower limit value of the basis weight.

Therefore, even if the description of the above-mentioned written opinion is taken into consideration, it can be said that a person skilled in the art cannot understand, based on the detailed description, the drawings of the patent of the case and the common general technical knowledge at the time of the application, the substantive relation between the problem to be solved of the invention and the specification by the numerical value ranges, and means for solving the problems of the problem to be solved of the invention cannot be understood; therefore, it cannot be said that the detailed description is not described sufficiently clearly that a person skilled in the art can carry out the invention.

(3) Regarding Reason 2

(3-1) Regarding Invention 1

A Descriptions in Evidence A No. 2

In Evidence A No. 2, relating to "cutting method for sheet-shaped member, mat and exhaust gas purification device", there are the following descriptions along with drawings (in particular, refer to [FIG. 8]). (Note that underlines were added by the body)

(A) "[0004]

Such a holding sealing material for an exhaust gas treating body is manufactured by processing a sheet-shaped inorganic fiber aggregate into a shape according to the size of an exhaust gas treating body or the like."

(B) "[0056]

The sheet-shaped inorganic fiber aggregate is mainly composed of inorganic fibers, and conventionally known ones can be suitably used.

[0057]

The inorganic fiber is not particularly limited, but is desirably composed of at least one selected from the group consisting of alumina fiber, silica fiber, alumina silica fiber, mullite fiber, bio-soluble fiber, and glass fiber, and is more desirably includes at least one selected from the group consisting of alumina fiber and bio-soluble fiber.

In the case where the inorganic fiber is alumina fiber, since it is excellent in heat resistance, even when it is exposed to high temperature, no deterioration or the like occurs, so that it is particularly suitable as a holding sealing material to be arranged between the exhaust gas treating body and the casing. In addition, in the case where the inorganic fiber is bio-soluble fiber, when manufacturing the exhaust gas purification device using the holding sealing material, even when scattered inorganic fibers are inhaled or the like, it dissolves in the living body, so that there is no harm to health of an operator.

[0058]

In addition to alumina, the alumina fiber may contain additives such as calcia, magnesia, zirconia, and the like. The composition ratio of the alumina silica fiber is preferably Al_2O_3 : SiO_2 = 60: 40 to 80: 20 in terms of weight ratio, more preferably Al_2O_3 : SiO_2 = 70: 30 to 74: 26.

The mullite crystallization rate of the alumina fiber is preferably 5 parts by weight or less, more preferably 3 parts by weight or less, most preferably 1 part by weight or less based on 100 parts by weight of the fiber. The mullite crystallization rate can be measured with a fluorescent X-ray apparatus, and when it is 5 parts by weight or less, the fiber is not brittle and has elasticity, so that it becomes an inorganic fiber aggregate having excellent holding power and buffering property.

[0059]

The average fiber length of the inorganic fiber is not particularly limited, but is desirably 0.05 to 150 mm, more desirably 0.35 to 100 mm.

The average fiber diameter of the inorganic fiber is not particularly limited, but is desirably 1 to 20 μm , more desirably 1 to 10 μm from the viewpoint of the strength and flexibility of the mat.

The inorganic fiber aggregate is desirably made by a wet method, and the desirable average fiber length in this case is 0.05 to 5 mm, more desirably 0.5 to 3 mm.

By the wet method, it is possible to easily produce an inorganic fiber aggregate of a

wide range of a basis weight, and the basis weight is not particularly limited; however, a desirable basis weight is 2000 g/m² to 6000 g/m², more desirably 3000 to 5000 g/m²."

(C) "[0065]

The thickness of the inorganic fiber aggregate is desirably 15 mm or more, more desirably 20 mm or more, and further desirably 25 mm or more. It is also desirably 50 mm or less, more desirably 40 mm or less. The inorganic fiber aggregate having a thickness within the above range can be cut without damaging the inorganic fiber aggregate by the cutting method of the present invention, and therefore it becomes a mat having a high surface pressure."

(D) "[0068]

An exhaust gas purification device of the present invention comprises a casing, an exhaust gas treating body accommodated in the casing, and a holding sealing material wound around the exhaust gas treating body and disposed between the exhaust gas treating body and the casing, wherein the holding sealing material is a mat having a substantially rectangular shape in plan view cut by the cutting method of the sheet member of the present invention.

FIG. 8 is a cross-sectional view schematically showing an example of the exhaust gas purification device of the present invention.

As shown in FIG. 8, the exhaust gas purification device 300 of the present invention comprises a casing 310, an exhaust gas treating body 320 accommodated in the casing 310, and a mat 200 disposed between the exhaust gas treating body 320 and the casing 310.

The exhaust gas treating body 320 is in the form of a column in which a large number of cells 325 are juxtaposed in the longitudinal direction with a cell wall 326 therebetween, and one end of the cell 325 is sealed with a sealing material 328. An inlet pipe for introducing exhaust gas discharged from the internal combustion engine as necessary and a discharge pipe through which exhaust gas having passed through the exhaust gas purification device is discharged to the outside are connected to the end of the casing 310."

(E) "[0090]

(Measurement of Surface Pressure)

In order to perform a compression restoration cycle test with a universal testing machine, mats according to Examples 1 and 2 and Comparative Examples 1 and 2 were set in the

testing machine, and were compressed, at room temperature and at a speed of 1 mm/min, to a bulk density of a mat (GBD) of a predetermined value (0.2 g/cm³, 0.25 g/cm³, 0.3 g/cm³), and the load at this time was measured as the surface pressure at each GBD.

The bulk density (GBD: Gap Bulk Density) of an evaluation sample is a value obtained by 'bulk density = weight of the evaluation sample / (area of evaluation sample × thickness of evaluation sample)'."

When these described matters and the illustrated contents of the drawings are integrated, in Evidence A No. 2, there is described the following invention (hereinafter, referred to as "Cited Invention").

[Cited Invention]

"An exhaust gas purification device, comprising:

an exhaust gas treating body 320; a casing 310 accommodating the exhaust gas treating body; and a holding sealing material disposed between the exhaust gas treating body 320 and the casing 310, wherein

the holding sealing material is produced by processing an inorganic fiber aggregate, is composed of alumina fiber, is produced by a wet method, and has a basis weight of 2000 g/m² to 6000 g/m², and wherein the inorganic fiber aggregate has the thickness of 15 mm or more, and is in a compressed state to a filling density of 0.3 g/cm³."

B Comparison

When Invention 1 and Cited Invention are compared,

"exhaust gas treating body 320" of Cited Invention corresponds, as viewed from its function, working effect, and technical significance, to "exhaust gas treating body" of Invention 1, and, in a similar fashion, "casing 310" corresponds to "holding material for an exhaust gas treatment device", "inorganic fiber aggregate" composed of "alumina fiber" to "only alumina fibers as inorganic fibers", "is produced by a wet method" to "composed of a wet molded body", and "exhaust gas purification device" to "exhaust gas treatment device", respectively.

Then, "filling density of 0.3 g/cm³" of Cited Invention and "filling density of 0.20 to 0.60 g/cm³" of Invention 1 are identical to the extent that "filling density of a predetermined density".

Therefore, there are the following corresponding feature and the different features between Invention 1 and Cited Invention.

[Corresponding Feature]

"An exhaust gas treatment device, comprising: an exhaust gas treating body; and a casing accommodating the exhaust gas treating body, wherein

a gap between the exhaust gas treating body and the casing accommodating the exhaust gas treating body contains only alumina fibers as inorganic fibers and a holding material for an exhaust gas treatment device composed of a wet molded body is disposed in a state compressed to a filling density of a predetermined density range."

[Different Feature 1]

In Invention 1, the holding material for an exhaust gas treatment device has "a basis weight of 1800 to 2200 g/m² and a bulk density of 0.145 to 0.185 g/cm³", whereas, in Cited Invention, the holding sealing material has "a basis weight of 2000 g/m² to 6000 g/m²", and a bulk density is not clearly indicated.

[Different Feature 2]

Regarding the filling density, the Invention has "a filling density of 0.20 to 0.60 g/cm³", whereas, Cited Invention has "a filling density of 0.3 g/cm³".

C Judgment

The above-mentioned [Different Feature 1] will be examined.

In Cited Invention, regarding the holding sealing material, it is specified as the basis weight is 2000 g/m² to 6000 g/m², and the thickness of the inorganic fiber aggregate is 15 mm or more.

Then, it can be said that it is a matter that can be determined by a person skilled in the art arbitrarily how to set the basis weight and the thickness within the relevant numerical value ranges according to a use condition and the like. For example, when it is set such that the basis weight is 2200 g/m² and the thickness is 15 mm, the bulk density becomes 0.147 g/cm³ and satisfies the numerical value range of Invention 1. Therefore, it could have been easily derived by a person skilled in the art to make Cited Invention have the matters specifying the invention of Invention 1 concerning the above-mentioned Different Feature 1.

Against this, the Patentee alleges in the above-mentioned written opinion that "Evidence A No. 2 is one that formally stipulates, in paragraph [0059] thereof, a wide

range of a basis weight of the inorganic fiber aggregate as 2000 g/m² to 6000 g/m², and, specifically, it is one that only discloses, in examples thereof, inorganic fiber aggregates having basis weights of 3000 g/m² (manufacturing example 1) and 4500 g/m² (manufacturing example 2)", and "is not one that substantially discloses the technical matter that a wet molded body has 'a basis weight of 1800 to 2200 g/m².'", "Further, Evidence A No. 2 is not one that clearly indicates a bulk density range of the inorganic fiber aggregate, and is just one that discloses, in an example thereof, an inorganic fiber aggregate having a bulk density of 1.82 g/cm³ ... or 1.81 g/cm³ ..., and, therefore, it is not one that discloses the technical matter that 'the holding material for an exhaust gas treatment device composed of a wet molded body has "a bulk density of 0.145 to 0.185 g/cm³.""

However, a basis weight shown in Cited Invention is not limited to the examples (paragraph [0083] of Evidence A No. 2), and, for example, by making it be a basis weight of 2200 g/m² and a thickness of 15 mm as included in Cited Invention, the bulk density becomes 0.147 g/cm³, and will satisfy the numerical value range of the invention of the case.

Then, it could have been easily derived by a person skilled in the art to make Cited Invention have the matters specifying the invention of Invention 1 concerning the above-mentioned Different Feature 1.

The above-mentioned [Different Feature 2] will be examined below.

In Cited Invention, "a filling density is 0.3 g/cm³", and since this is included in "a filling density of 0.20 to 0.60 g/cm³" of Invention 1, it cannot be said that it is a substantial different feature.

Then, it could have been easily derived by a person skilled in the art to make Cited Invention have the matters specifying the invention of Invention 1 concerning the above-mentioned Different Feature 2.

(3-2) Regarding Invention 2

A Cited Invention is as indicated in the above-mentioned (3-1)A.

B Comparison

When Invention 2 and Cited Invention are compared, these are identical in the corresponding feature shown in the comparison with Invention 1, and differ in terms of the following point in addition to Different Features 1 and 2.

[Different Feature 3]

In Invention 2, "a thickness of the wet molded body in the compressed state is 2.5 to 8 mm", whereas, in Cited Invention, the thickness in the state that the holding sealing material is compressed is not indicated.

C Judgment

As indicated in the above-mentioned (3-1)C, regarding the holding sealing material of Cited Invention, when making it be a thickness of 15 mm, a bulk density of 0.147 g/cm³, and a filling density of 0.3 g/cm³, the compression thickness becomes 7.35 mm (= 0.147 g/cm³ × 1.5 cm ÷ 0.3 g/cm³), and thus it can be said that it satisfies "a thickness of 2.5 to 8 mm" in Invention 2.

Therefore, it cannot be said that the above-mentioned Different Feature 3 is a substantive different feature.

Then, since Different Features 1 and 2 are as examined in the above-mentioned (3-1)C, it could have been easily derived by a person skilled in the art to make Cited Invention have the matters specifying the invention of Invention 2.

No. 4 Closing

As above, since Inventions 1 and 2 could have been invented by a person skilled in the art easily based on the invention described in Evidence A No. 2, the patents according to Inventions 1 and 2 are ones that were made in violation of Article 29(2) of the Patent Act, fall under Article 113(2) of the same Act, and should be revoked.

In addition, the patent according to Inventions 1 and 2 are ones made in violation of the provisions of Article 36(4)(i) of the Patent Act and Article 36(6)(i) of the Patent Act, fall under Article 113(4) of the same Act, and thus should be revoked.

Therefore, the decision shall be made as described in the conclusion.

December 1, 2020

Chief administrative judge: WATANABE, Toyohide
Administrative judge: KITAMURA, Hidetaka
Administrative judge: SUZUKI, Mitsuru